

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A control device for an overhead conveyor, comprising:
 - at least two actuators;
 - a control unit transmitting control signals and safety signals to said actuators via a signal connection;
 - said control unit including a safety switch unit emitting at least one safety signal, which can be initiated manually in order to shut down at least one of said actuators;
 - a signal connection including a serial bi-directional data bus used for signal transmission between said control unit and said actuators;
 - actuator controls, each including a corresponding safety control, said safety controls monitoring independently from each other all safety signals transmitted via said data bus and emitting at least one shut-down command to at least one of said actuator controls, when at least one predetermined incident occurs.
2. The control device according to claim 1, wherein said control unit includes a hanging switch unit connected via an electrical control line, and one of said safety controls comprising an emergency switch of said hanging switch unit.
3. The control device according to claim 1, wherein said one of said safety controls includes a safety switch, which shuts down the pertinent actuator as an incident occurs.
4. The control device according to claim 3, wherein one of the predetermined incidents is a failure of said control unit.
5. The control device according to claim 3, wherein said control unit continuously emits at predetermined intervals an activity signal and that if the activity signal is absent, it is considered that an incident that has occurred.
6. The control device according to claim 1, wherein each said safety control is integrated into its corresponding actuator control.

7. The control device according to claim 1, wherein at least one of said safety controls also monitors the signals of additional conveyor components, especially the sensors of other components relevant to safety.
8. The control device according to claim 1, wherein the signal transmission, including transmission of control signals and transmission of safety signals via conductor lines, said conductor lines being activated by line drivers, ensuring the timed sequence of data bus signals according to a predetermined protocol.
9. The control device according to claim 1, wherein said control unit includes a hanging switch unit connected via an electrical control line, and one of said safety controls comprising an emergency switch of said hanging switch unit.
10. The control device according to claim 4, wherein said control unit continuously emits at predetermined intervals an activity signal and that if the activity signal is absent, it is considered that an incident that has occurred.
11. The control device according to claim 1 wherein said at least two actuators comprise crane and trolley drive units.
12. The control device according to claim 1, wherein said control unit is defined by a personal computer.
13. A control device for an overhead conveyor comprising:
 - at least one actuator;
 - a control unit for a signal connection;
 - transmission of control signals and transmission of safety signals from said control unit to said at least one actuator, whereby said control unit defines a safety switch unit to emit at least one safety signal that can be triggered manually in order to shut down the actuator;
 - said signal connection including a serial bi-directional data bus, through which signal transmission occurs between said control unit and said at least one actuator;

said at least one actuator equipped with an actuator control;
a safety control, monitoring all of the safety signals transmitted via said data bus and emitting at least one shut-down command to said actuator control when at least one predetermined incident occurs.

14. The control device according to claim 13, wherein said control unit includes a hanging switch unit connected via an electrical control line, and one of said safety controls comprising an emergency switch of said hanging switch unit.

15. The control device according to claim 13, wherein said one of said safety controls includes a safety switch, which shuts down the pertinent actuator as an incident occurs.

16. The control device according to claim 15, wherein one of the predetermined incidents is a failure of said control unit.

17. The control device according to claim 15, wherein said control unit continuously emits at predetermined intervals an activity signal and that if the activity signal is absent, it is considered that an incident that has occurred.

18. The control device according to claim 13, wherein each said safety control is integrated into its corresponding actuator control.

19. The control device according to claim 13, wherein at least one of said safety controls also monitors the signals of additional conveyor components, especially the sensors of other components relevant to safety.

20. The control device according to claim 13, wherein the signal transmission, including transmission of control signals and transmission of safety signals via conductor lines, said conductor lines being activated by line drivers, ensuring the timed sequence of data bus signals according to a predetermined protocol.

21. The control device according to claim 13, wherein said control unit is defined by a personal computer.